

AMENDMENT TO THE CLAIMS

The listing of Claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1-4. (Canceled)

Sub
C1 } 5. (Previously Amended) A method for communicating between
computers interconnected by a communications network, the method comprising the
steps of:

- (a) receiving, at a deriving computer, a request from a client for transmission to the client of a user-selected version of a target file, the target file having particular informational content independent of its embodiment in a particular version;
- (b) deriving by conversion the user-selected version from a materialized file from which the user-selected version is derivable if the user-selected version is not accessible to the deriving computer;
- (c) transmitting, from the deriving computer to the client, the user-selected version; and
- (d) transmitting from the deriving computer to a server, responsive to receiving the request in step (a), a request for transmission to the deriving computer of a materialized parent file from which the user-

selected version may be derived by conversion, step (d) being performed before step (b).

6. (Original) The method set forth in claim 5, further comprising the step of:

- (e) transmitting, from the deriving computer to the client, a program for generating a menu of user-selectable versions of the target file, step (e) being performed before step (a).

7. (Original) The method set forth in claim 6, further comprising the steps of:

- (f) receiving, at the deriving computer, a file responsive to a request for transmission of the file originating from the client;
- (g) deriving, at the deriving computer, a default, low resolution, version of the file, the default, low resolution version being transmitted to the client responsive to the client's request for transmission of the file, steps (f) and (g) being performed before step (e), the menu generation program transmitted in step (e) being transmitted along with the default, low resolution version.

8. (Original) The method set forth in claim 7, further comprising the step of:

- (h) generating a menu of user-selectable versions of the target file, the menu being generated by the menu generation program as determined by the versions materialized on the server and the versions derivable therefrom by the conversion software available to the deriving computer, step (h) being performed before step (a).

9-26. (Canceled)

27. (Currently Amended) A method of communication of a user-selected version of a file to a client connected to a server by a communications network, a version of the target file being materialized on the server, the method comprising the steps of:

- (a) selecting, at the client, a hyperlink that is a single point of access to a target file ~~having particular informational content~~ to initiate transmission of a version of the target file to the client, the target file having particular informational content, the hyperlink being independent of any version of the target file;
- (b) responsive to step (a), generating, at the client, a menu of user-selectable versions of the target file, at least one user-selectable version being derivable by conversion from a materialized version, the at least one user-selectable version not being materialized;
- (c) selecting, at the client, a user-selected version of the target file from the menu; and

(d) receiving, at the client, the user-selected version of the target file.

28. (Original) The method set forth in claim 27 wherein a proxy for relaying communications between the client and the server connects the client to the server and wherein the proxy transmits menu-generation information to the client.

29. (Original) The method set forth in claim 28 wherein the proxy transmits the menu-generation information to the client along with a file transmitted from the proxy to the client.

30. (Original) The method set forth in claim 29 wherein the client generates the menu of user-selectable versions in step (b) from the menu-generation information.

31. (Previously Amended) The method set forth in claim 30 wherein the menu of user-selectable versions of the file comprises a selection for the materialized version of the target file.

32. (Original) The method set forth in claim 31 wherein the menu of user-selectable versions of the target file further comprises selections for a plurality of materialized versions of the target file.

33. (Previously Amended) The method set forth in claim 32 wherein the proxy comprises a memory cache for storage of files the method further comprises the step of:

- (e) transmitting the user-selected version of the target file from the proxy to the client if the user-selected version is in the cache, step (e) being performed intermediate steps (c) and (d).

34. (Original) The method set forth in claim 33 wherein the method further comprises the step of:

- (f) deriving the user-selected version of the target file from a version of the target file resident in the cache if the user-selected version can be derived from a version resident in the cache by conversion, step (f) being performed intermediate steps (e) and (d).

35. (Original) The method set forth in claim 34 wherein the method further comprises the step of:

- (g) requesting and receiving a materialized version of the file at the proxy if the user-selected version of the file is not resident in the cache and is not derivable from a version resident in the cache, step (g) being performed intermediate steps (f) and (d).

36. (Original) The method set forth in claim 35 wherein the method further comprises the step of:

- (h) transmitting the materialized version of the target file to the client if the user-selected version is the materialized version, step (h) being performed intermediate steps (g) and (d).

37. (Original) The method set forth in claim 36 wherein the method further comprises the step of:

- (i) deriving the user-selected version of the file from the materialized version of the target file by conversion and transmitting the user-selected version of the target file to the client, if the user-selected version is derivable from the materialized version, step (i) being performed intermediate steps (h) and (d).

38. (Original) The method set forth in claim 37 wherein the single point of access is a hyperlink displayed at the client.

39-41. (Canceled)

42. (Amended) A proxy computer for satisfying a request for a user-selected version of a target file not materialized on the proxy computer, the proxy computer comprising:

a first program for requesting from a server computer a materialized parent version of the target file from which the user-selected version can be derived if such a version is not stored on the proxy computer;

a second program for deriving the user-selected version from the parent version by conversion; and

a third program for transmitting the user-selected version in response to the request.

43-44. (Canceled)

45. (Previously Amended) The computer of claim 42 wherein the proxy computer comprises a program for transmitting menu-generation information to a client along with a communication transmitted from the proxy computer to the client.

46. (Original) The computer of claim 45 wherein the proxy further comprises a memory cache for storing files.

47. (Previously Amended) The computer of claim 46 wherein the proxy computer further comprises:

a fourth program for determining whether the user-selected version is derivable from a parent version resident in the cache; and

a fifth program for deriving the user-selected version from a parent version resident in the cache.

48-49. (Canceled)

50. (Previously Added) A method for communicating between a client and a server interconnected to the client by a communications network, the method comprising the steps of:

- (a) receiving a client's request for transfer of a file having particular informational content;
- (b) identifying a parent file embodying the informational content;
- (c) deriving, by conversion of the parent file, a derived version of the parent file, the derived version being a predetermined default version that is a low resolution version of the parent file; and
- (d) transmitting the derived version to the client in response to the request.

51. (Previously Added) The method set forth in claim 50, wherein the default setting is specified by the client.

52. (Previously Added) The method set forth in claim 50, wherein the default setting is specified by a proxy for relaying a communication between a sender and a receiver.

53. (Previously Added) The method set forth in claim 50, wherein the client's request is received at the server, the parent file being materialized at the server.

54. (Previously Added) The method set forth in claim 50, wherein the client's request is received at the server, and wherein the server transmits the parent file to a proxy for relaying a communication between a sender and a receiver, the parent file being materialized at the server, and the proxy derives the derived version.

55. (Previously Added) The method set forth in claim 54, the method further comprising the steps of:

(e) requesting, at the proxy, transfer of the parent file from the server to the proxy; and

(f) receiving, at the proxy, the parent file;


wherein the deriving of the derived version is performed at the proxy.

56. (Previously Added) The method set forth in claim 54, wherein the proxy transmits a program for generating a menu of user-selectable versions to a client along with the default version.

57. (Previously Added) The method set forth in claim 52, further comprising the step of:
generating at the client, a menu of user-selectable versions of the target file.

58. (Previously Added) The method set forth in claim 52, further comprising the steps of:

- (e) determining whether the default version of the target file is resident in a memory cache on a proxy computer in the communications network;
and
- (f) transmitting the default version of the target file from the cache to the client if the user-selected version is resident in the cache.

 59. (Previously Added) The method set forth in claim 58, further comprising the steps of:

- (g) determining whether the default version of the target file can be derived by conversion from any version of the target file resident in the cache; and
- (h) deriving by conversion the default version of the target file from a version resident in the cache if the default version can be so derived.

60. (Previously Added) The method set forth in claim 59, further comprising the step of:

- (i) requesting transmission from the server of a materialized version of the target file from which the default version may be derived, if the default version cannot be derived from a version resident in the cache.

61. (Previously Added) The method set forth in claim 58, wherein the cache employs an ignore heuristic technique to manage the identity of the files

resident in the cache, such that the cache does not store versions which are derivable from other versions resident in the cache.

62. (Previously Added) The method set forth in claim 58, wherein the cache employs a save heuristic technique to manage the identity of the files resident in the cache, whereby all derived versions are stored in the cache.

63. (Previously Added) The method set forth in claim 58, wherein the cache determines whether a version resident in the cache is a current version of the target file and requests a current version of the target file if the version resident in the cache is not a current version.

64. (Currently Amended) A method for communicating between computers interconnected by a communications network, the method comprising the steps of:

receiving a request for transmission to a client of a file, the file having particular informational content, resolution, and format;

deriving, by conversion of a materialized file having the particular informational content, a derived version of the file, the derived version of the file having the particular informational content at a lower resolution than the materialized file, the resolution and format of the derived version being determined by a predetermined default setting; and

transmitting, from the deriving computer to the client, the derived version;

whereby the file requested has a particular resolution and format, and the request is satisfied by transmitting the derived version to the client, the derived version having a different resolution or format as determined by the default setting.

65. (Previously Added) The method set forth in claim 64, wherein the default setting is specified by the client.

66. (Previously Added) The method set forth in claim 64, wherein the default setting is specified by a proxy for relaying a communication between a sender and a receiver.

67. (Previously Added) The method set forth in claim 64, wherein the deriving step is performed at a proxy for relaying a communication between a sender and a receiver.

68. (Currently Amended) The method set forth in claim 67, wherein the materialized file is not resident at the proxy, but rather is received by the proxy in response to the proxy's request for transmission of a materialized parent file from which the user-selected version may be derived by conversion, the proxy requesting the parent file from a server responsive to the client's request.

69. (Currently Amended) A method for communicating between client and server computers interconnected by a communications network, the method comprising:

responsive to a user's selection of a hyperlink to a target file having particular informational content, receiving a request for transmission of the target file to a client, the hyperlink being independent of any version of the target file;

transmitting to a server, responsive to receiving the request for transmission of the target file, a request for transmission of a materialized parent file from which another version may be derived by conversion;

deriving, in accordance with a predetermined default setting, a derived version of a the materialized file embodying the particular informational content, the derived version embodying the particular informational content but having a resolution lower than the materialized file; and

transmitting, ~~from the deriving computer~~ to the client, the derived version.

70. (Previously Added) The method set forth in claim 69, wherein the default setting is specified by the client.

71. (Previously Added) The method set forth in claim 69, wherein the default setting is specified by a proxy for relaying a communication between a sender and a receiver.

72. (Previously Added) The method of claim 69, wherein the deriving step is performed at a proxy for relaying a communication between a sender and a receiver.

73. (Currently Amended) A method for communicating between computers interconnected by a communications network, the method comprising the steps of:

receiving from a server, at a proxy computer for relaying a communication between a sender and a receiver, a materialized file having particular informational content, resolution and format, the materialized file being received at the proxy responsive to a request for the materialized file;

deriving by conversion of the materialized file, at the proxy computer, a derived version embodying the particular informational content but having a resolution and format determined by a predetermined default setting; and

transmitting, from the deriving computer to the client, the derived version to satisfy the request.

74. (Previously Added) The method set forth in claim 73, wherein the default setting is specified by the client.

75. (Previously Added) The method set forth in claim 73, wherein the default setting is specified by the proxy.